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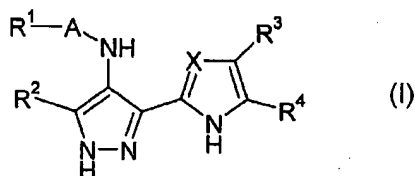
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(54) Title: PHARMACEUTICAL COMPOUNDS



(57) Abstract: The invention provides a compound of the formula (I): or a salt, N-oxide or solvate thereof; wherein X is CR<sup>5</sup> or N; A is a bond or -(CH<sub>2</sub>)<sub>m</sub>-(B)<sub>n</sub>; B is C=O, NR<sup>6</sup>(C=O) or O(C=O) wherein R<sup>6</sup> is hydrogen or C<sub>1-4</sub> hydrocarbyl optionally substituted by hydroxy or C<sub>1-4</sub> alkoxy; m is 0, 1 or 2; n is 0 or 1; R<sup>1</sup> is hydrogen, a carbocyclic or heterocyclic group having from 3 to 12 ring members, or an optionally substituted C<sub>1-8</sub> hydrocarbyl group; R<sup>2</sup> is hydrogen, halogen, methoxy, or a C<sub>1-4</sub> hydrocarbyl group optionally substituted by halogen, hydroxyl or methoxy; R<sup>3</sup> and R<sup>4</sup> are the same or different and each is selected from hydrogen, CN, C(O)R<sup>8</sup>, optionally substituted C<sub>1-8</sub> hydrocarbyl and carbocyclic or heterocyclic groups having from 3 to 12 ring members; and R<sup>5</sup> is hydrogen, a group R<sup>2</sup> or a group R<sup>10</sup> wherein R<sup>10</sup> is selected from halogen, hydroxy, trifluoromethyl, cyano, nitro, carboxy, amino, mono- or di-C<sub>1-4</sub> hydrocarbyl amino, carbocyclic and heterocyclic groups having from 3 to 12 ring members; a group R<sup>a</sup>-R<sup>b</sup> wherein R<sup>a</sup> is a bond, O, CO, X<sup>1</sup>C(X<sup>2</sup>), C(X<sup>2</sup>)X<sup>1</sup>, S, SO, SO<sub>2</sub>, NR<sup>c</sup>, SO<sub>2</sub>NR<sup>c</sup> or NR<sup>c</sup>SO<sub>2</sub>; and R<sup>b</sup> is selected from hydrogen, carbocyclic and heterocyclic groups having from 3 to 12 ring members, and a C<sub>1-8</sub> hydrocarbyl group optionally substituted by one or more substituents selected from hydroxy, oxo, halogen, cyano, nitro, carboxy, amino, mono- or di-C<sub>1-4</sub> hydrocarbylamino, carbocyclic and heterocyclic groups having from 3 to 12 ring members and wherein one or more carbon atoms of the C<sub>1-8</sub> hydrocarbyl group may optionally be replaced by O, S, SO, SO<sub>2</sub>, NR<sup>c</sup>, X<sup>1</sup>C(X<sup>2</sup>), C(X<sup>2</sup>)X<sup>1</sup> or X<sup>1</sup>C(X<sup>2</sup>)X<sup>1</sup>; R<sup>c</sup> is selected from hydrogen and C<sub>1-4</sub> hydrocarbyl; X<sup>1</sup> is O, S or NR<sup>c</sup> and X<sup>2</sup> is =O, =S or =NR<sup>c</sup>; and R<sup>8</sup> is selected from OR<sup>11</sup>, SR<sup>11</sup> and NR<sup>12</sup>R<sup>13</sup>; R<sup>11</sup> is selected from optionally substituted C<sub>1-8</sub> hydrocarbyl and carbocyclic or heterocyclic groups having from 3 to 12 ring members; and one of R<sup>12</sup> and R<sup>13</sup> is a group R<sup>11</sup> and the other of R<sup>12</sup> and R<sup>13</sup> is hydrogen or C<sub>1-4</sub> alkyl; or R<sup>12</sup> and R<sup>13</sup> and the nitrogen atom to which they are attached together form a saturated heterocyclic group having from 4 to 7 ring members and containing 1,2 or 3 heteroatom ring members selected from N, O and S. The compounds have activity against cyclin dependent kinases glycogen synthase kinase and Aurora kinases.

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